

WHAT IS CLAIMED IS:

1. A thermoplastic resin composition comprising:
 - a fluororesin in an amount ranging from 5 to 40 parts by weight, the fluororesin including crosslink formed between at least a part of
 - 5 carbon atoms forming part of a molecule chain of the fluororesin and at least a part of carbon atoms forming part another molecular chain of the fluororesin, and active end group formed at least a part of the molecule chain of the fluororesin; and
 - a thermoplastic resin other than the fluororesin, in an amount
 - 10 ranging from 95 to 60 parts by weight.
2. A thermoplastic resin composition as claimed in Claim 1, wherein the crosslink and the active end group are formed by irradiating an ionizing radiation in a dosage ranging from 1 kGy to 10 MGy onto the
- 15 fluororesin in a condition in which the fluororesin is heated at a temperature of not lower than a melting point of the fluororesin in an inert gas atmosphere having an oxygen concentration of not higher than 1.33 kPa.
- 20 3. A thermoplastic resin composition as claimed in Claim 1, wherein the fluororesin has an average diameter ranging from 5 to 30 μm .
4. A thermoplastic resin composition as claimed in Claim 1, wherein the thermoplastic resin is polyamide resin, and the fluororesin is
- 25 tetrafluoroethylene.
5. A combination of thermoplastic resin composition with a lubricating oil, the thermoplastic resin composition being used in presence of the lubricating oil, thermoplastic resin composition
- 30 comprising:
 - a fluororesin in an amount ranging from 5 to 40 parts by weight,

the fluororesin including crosslink formed between at least a part of carbon atoms forming part of a molecule chain of the fluororesin and at least a part of carbon atoms forming part another molecular chain of the fluororesin, and active end group formed at least a part of the molecule
5 chain of the fluororesin; and

a thermoplastic resin other than the fluororesin, in an amount ranging from 95 to 60 parts by weight,

wherein the thermoplastic resin has a surface energy ranging from a first value of [a surface energy of the lubricating oil + 0] N/cm to a
10 second value of [the surface energy of the lubricating oil + 20×10^5] N/cm.

6. A resinous material comprising:

a thermoplastic resin composition including

15 a fluororesin in an amount ranging from 5 to 40 parts by weight, the fluororesin including crosslink formed between at least a part of carbon atoms forming part of a molecule chain of the fluororesin and at least a part of carbon atoms forming part another molecular chain of the fluororesin, and active end groups formed at least a part of the
20 molecule chain of the fluororesin, and

a thermoplastic resin other than the fluororesin, in an amount ranging from 95 to 60 parts by weight;

wherein at least a part of the active end groups of the fluororesin is chemically bonded with atom forming part of the thermoplastic resin
25 by kneading both the thermoplastic resin and fluororesin upon heating both the thermoplastic resin and the fluororesin to a temperature close to melting points of the thermoplastic resin and the fluororesin and upon applying a vacuum-suction to both the thermoplastic resin and the fluororesin.

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7. A sliding member comprising:

a thermoplastic resin composition including

a fluororesin in an amount ranging from 5 to 40 parts by weight, the fluororesin including crosslink formed between at least a part of carbon atoms forming part of a molecule chain of the fluororesin and at least a part of carbon atoms forming part another molecular chain of the fluororesin, and active end group formed at least a part of the molecule chain of the fluororesin, and

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a thermoplastic resin other than the fluororesin, in an amount ranging from 95 to 60 parts by weight.

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8. A sliding member formed of a resinous material, the resinous material comprising:

a thermoplastic resin composition including

a fluororesin in an amount ranging from 5 to 40 parts by weight, the fluororesin including crosslink formed between at least a part of carbon atoms forming part of a molecule chain of the fluororesin and at least a part of carbon atoms forming part another molecular chain of the fluororesin, and active end groups formed at least a part of the molecule chain of the fluororesin, and

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a thermoplastic resin other than the fluororesin, in an amount ranging from 95 to 60 parts by weight,

wherein at least a part of the active end groups of the fluororesin is chemically bonded with atom forming part of the thermoplastic resin by kneading both the thermoplastic resin and fluororesin upon heating both the thermoplastic resin and the fluororesin to a temperature close to melting points of the thermoplastic resin and the fluororesin and upon applying a vacuum-suction to both the thermoplastic resin and the fluororesin.

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30 9. A chain system for an internal combustion engine, comprising a shoe of one of at least one of a chain guide and a chain tensioner,

the shoe being formed of a resinous material, the resinous material including a fluororesin in an amount ranging from 5 to 40 parts by weight, the fluororesin including crosslink formed between at least a part of carbon atoms forming part of a molecule chain of the fluororesin
5 and at least a part of carbon atoms forming part another molecular chain of the fluororesin, and active end group formed at least a part of the molecule chain of the fluororesin, and a thermoplastic resin other than the fluororesin, in an amount ranging from 95 to 60 parts by weight,
a metal chain in sliding contact with the shoe, the metal chain
10 having a surface roughness (Rz) of not larger than 5 μm .

10. A seal ring used in a motor vehicle, formed of a resinous material, the resinous material comprising a thermoplastic resin composition, the thermoplastic resin composition including:
15 a fluororesin in an amount ranging from 5 to 40 parts by weight, the fluororesin including crosslink formed between at least a part of carbon atoms forming part of a molecule chain of the fluororesin and at least a part of carbon atoms forming part another molecular chain of the fluororesin, and active end group formed at least a part of the molecule
20 chain of the fluororesin; and

a thermoplastic resin other than the fluororesin, in an amount ranging from 95 to 60 parts by weight, the thermoplastic resin being at least one selected from the group consisting of polyamideimide resin, polyetherimide resin, and polyetherether ketone resin.

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11. A method of producing a resinous material containing a fluororesin and a thermoplastic resin other than the fluororesin, comprising:
irradiating an ionizing radiation in a dosage ranging from 1 kGy
30 to 10 MGy onto the fluororesin in a condition in which the fluororesin is heated at a temperature of not lower than a melting point of the

fluororesin an inert gas atmosphere having an oxygen concentration of not higher than 1.33 kPa; and

- introducing the fluororessin irradiated with the ionizing radiation into an extruder to knead both the thermoplastic resin and the
- 5 fluororessin upon heating both the thermoplastic resin and the fluororessin to a temperature close to melting points of the thermoplastic resin and the fluororessin and upon applying a vacuum-suction to both the thermoplastic resin and the fluororessin.